

# temDM Virtual TEM

**Installation:** The plugin „temDM VirtualTEM.gtk“ should be placed in some plugins folder of DigitalMicrograph.

The script „find plugins folders.s“ included in the distribution package will help you to localize such folders. Open „find plugins folders.s“ in DigitalMicrograph and run it by pressing „execute“ or by pressing **ENTER** with holding the **CNTR** key. Read the list of available plugins folders. The first folder in the list is most appropriated for placing the temDM plugins.

Some folders can be hidden in Windows. If you do not see all folders, make them visible in Windows explorer:

**Windows 7:** „Organize“ tab – „Folders and search options“ – „View“ tab – click „show hidden files, folders and drivers“ checkbox.

**Window 10:** „View“ tab – click „hidden items“ checkbox.

*Do not install it in the on-line DigitalMicrograph system connected with a real microscope!*

Drop the plugin into the chosen Plugins folder.

Put the folder „temDM Scripting Examples“ into C:ProgramDat\Gatan\Sample Scripts

Restart DigitalMicrograph.

To update the version, just overwrite the plugin of the previous version in the Plugins folder. This is needed to avoid confusion of DigitalMicrograph with loading ambiguous commands.

**Alternatively**, you can install the script manually in DigitalMicrograph.

Having “VirtualTEM nuclei 1).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM EM 2).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM EM 2).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM IF 3).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Camera 4).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM ContiniousAcquisition 5).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM TurboView 6).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM STEMacquisition 7).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM DS 8).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM SetExpBin 9).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM SetDrift 10).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM SetFEG 11).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM resetSettings 12).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel 13).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel I 14).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel II 15).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel III 16).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel Filter 17).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Panel DS 18).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

Having “VirtualTEM Menu 19).s” frontmost click: **“File” – “Install script”- “Library”-”OK”**

In this way, you can modify the text of the script.

*Virtual TEM* is aimed to simulate the basic scripting commands for communication with a TEM. It facilitates editing, debugging and rough testing user's on-line scripts in the off-line DigitalMicrograph.

The file "Command list.rtf" lists the supported commands. Some of them are specific for FEI (incl. the old CM series), JEOL or Zeiss TEMs. *Virtual TEM* does not consist of any switch among the specific kinds of microscopes. Instead, all known communication commands are present at once. Say, a virtual microscope plays a role of a hybrid FEI/JEOL/Zeiss device. The same principle is adopted for communication with a virtual hybrid GIF/Omega energy filter.

Additionally, *Virtual TEM* imitates few items in the on-line „Camera“ menu that can be fired by the script commands, e.g. `ChooseMenuitem("Camera", "", "Record")`.

Apart from scripting, a virtual microscope or a filter can be controlled from panels. They are assessable through the additional items in the "Camera" menu (not present in any real microscopes). This might be used as a simplest TEM simulator in introductory TEM courses.

